A UNIQUE COLLECTION OF TWO RHANTUS WALLISI IN THE BODY CAVITY OF A FEMALE DYTISCUS ALASKANUS (COLEOPTERA: DYTISCIDAE).1

R.B. Aiken, F.L. Leggett²

As part of a study on the reproductive biology of Dytiscus alaskanus (J. Balfour-Browne), we collected aquatic beetles every week in floating bottle traps (Aiken and Roughley, in press) from George Lake, Alberta $55^{\circ}5'N$, $114^{\circ}05'W$). D. alaskanus specimens were taken alive to the lab, killed in 70% ethanol and then the abdominal cavity injected with 70% ethanol to preserve the reproductive organs. While dissecting a female D. alaskanus collected in early June, we discovered two specimens of Rhantus wallisi (Hatch) in the abdominal cavity of the female D. alaskanus. The internal organs of the D. alaskanus female were gone except for a few muscle fibres. The female D. alaskanus was of average size for the species (total length = 2.56 cm).

The two specimens of *Rhantus* had apparently entered the body cavity of the *D. alaskanus* female at the intersegmental membrane between the last tergite and the genital capsule. In this area, there are numerous scallop-shaped bite marks along the posterior edge of the tergite. The most reasonable hypothesis is that the *Rhantus* probably attacked the *D. alaskanus* female when she was alive (we took only *D. alaskanus* from the lake and were careful to preserve only live animals) but weakened or injured. This concurs with other observations (Johnson and Jackinovich, 1970) that much of the diet of these 'predaceous' beetles is dead animal matter. Because of the methods of collecting and preserving, we are certain this attack occurred in the field. The confinment of the beetles in bottle traps for up to two days raised the probability of this occurring by bringing the two species in close and repeated contact.

LITERATURE CITED

Aiken, R.B. and R.E. Roughley. An efficient trapping and marking method for aquatic beetles. Trans. Phila. Acad. Nat. Sci. (in press).
Johnson, G.H. and W. Jackinovich, 1970. Feeding behavior of the predaceous diving beetle

Cybister fimbriolatus fimbriolatus (Say) (Col., Dytiscidae), BioScience 20:1111.

¹Received January 18, 1984. Accepted May 5, 1984.

²Department of Entomology, University of Alberta, Edmonton, Alberta T6G 2E3.



Fig. 1. Two Rhantus wallisi in the body cavity of a D. alaskanus female.